

**REMARKS**

Claims 1-2, 4-10, 12-18, and 20 were pending. Claims 1, 7, 9, 15, and 17 have been amended in order to clarify the nature of the invention. Therefore claims 1-2, 4-10, 12-18, and 20 remain pending in the application subsequent entry of the present amendment.

**35 U.S.C. § 103 Rejections**

In the present Office Actions, claims 1-2, 4-10, 12-18, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Midgley et al, (U.S. Patent No. 6,625,623 hereinafter “Midgley”) in view of Rubin et al. (U.S. Patent No. 5,680,573 hereinafter “Rubin”). Applicant respectfully traverses at least some of the above rejections and requests reconsideration.

Applicant submits the cited art, either singly or in combination, does not disclose all of the features of claim 1. As amended, claim 1 recites a computing system which includes:

“an application configured to initiate write transactions;  
a first storage device configured to store data corresponding to said write transactions;  
a memory pool; and  
a replicator component configured to:  
    monitor said write transactions;  
    allocate buffers from said memory pool for said write transactions; and  
    **automatically modify system resources** in response to I/O characteristics of said monitored write transactions, wherein modifying said system resources includes **modifying a size of said memory pool.**”

In paragraph 3 of the present Office Action, it is suggested that Rubin teaches the above highlighted limitations. For example, it is suggested that “Midgley is silent on the system comprising a memory pool and the replicator being configured to allocate buffers

from the memory pool for the write transactions and modifying the size of the memory pool in response to the I/O characteristics. Rubin teaches, in an analogous system, the above limitations (see line 60 of column 8 to line 11 of column 9).” However, Applicant submits at least the above highlighted features are neither taught nor suggested by the cited art. In contrast to the presently claimed invention, Rubin merely disclose that a **user** may dynamically define new memory pools and adjust their sizes. Specifically, Rubin discloses

“In addition to partitioning the memory into multiple buffer caches, the present invention allows the user to partition the individual buffer caches into multiple memory pools. This aspect of the invention provides advantages in memory management regardless of whether the system employs more than one buffer cache. Each memory pool within a buffer cache contains a plurality of identical MASSes (the smallest units of storage in a buffer cache). For example, one memory pool of a buffer cache may contain 500 k MASSes of 2 bytes each, while a second memory pool of the buffer cache may contain 100 k MASSes of 64 bytes each. Thus, each named buffer cache can be tailored to the type of objects to be stored therein. Buffer caches intended to hold relatively large data objects would be preferably set up with memory pools having relatively large data blocks.

The user can dynamically define new memory pools within a buffer cache and can adjust the sizes of the memory pools to accommodate demand. The user can also eliminate one or more memory pools as necessary.” (Rubin, col. 8, line 60 – col. 9, line 11).

While Rubin discloses that a user can adjust the sizes of the memory pools to accommodate demand, Applicant finds no teaching or suggestion in Rubin of “a replicator component configured to ... automatically modify system resources in response to I/O characteristics of said monitored write transactions, wherein modifying said system resources includes automatically modifying a size of said memory pool,” as is recited in amended claim 1. For at least the above reasons, Applicant submits that claim 1 is patentably distinguishable over the cited art, either singly or in combination. Further, because claims 9 and 17 include similar features to that of claim 1, claims 9 and 17 are patentable over the cited art for similar reasons. Likewise, as each of dependent claims 2, 4-8, 10, 12-16, 18, and 20 includes at least the features of the above independent claims upon

which it depends, each of dependent claims 2, 4-8, 10, 12-16, 18, and 20 is believed patentable as well.

In addition to the above, the dependent claims recite features which are neither disclosed nor suggested by the cited art. For example, in paragraph 8 of the present Office Action regarding claims 7 and 15, it is suggested that “Midgley teaches the replicator is further configured to: ... provide guidelines for modifying resources of said system (see lines 25-65 of column 19).” However, amended claim 7 recites:

“The computing system as recited in claim 2, wherein said replicator is further configured to:  
provide said recorded characteristics for display;  
provide guidelines to a user for modifying resources of said system; and  
modify said resources based upon user input.”

In contrast to the above claimed limitations, Midgley merely discloses that the user may specify certain operating values. For example, Midgley discloses

“... In practice, the system 10 of FIG. 1 will use by default as much available network bandwidth as it needs to back up or restore data. However, in one optional embodiment, the system 10 allows a user to specify the maximum amount of network bandwidth that it may consume when backing up or restoring data. ...

To this end, the back up server 12 may provide a bandwidth control process 44 that may be accessed through the console 24. In the depicted embodiment, the bandwidth control process is shown as operating on the back up server 12, however it will be apparent to those of skill in the art that the bandwidth control process 44 may be located on the data servers 18, 20, 22, or on both the data servers 18, 20, 22 and the back up server 12. The user may employ this process 44 to set a network consumption limit for each backup policy and restore operation. When setting this option, **the user** may select the bandwidth that is available between the source and backup systems, and specify a consumption limit to be allocated to the synchronization and/or dynamic replication processes. If multiple network links are available between the systems, **the user** may specify the slowest link. Further, the bandwidth control process 44 may include a process for determining, either dynamically, or historically, the available network resources, including network bandwidth and buffer availability, for a

given time. The determined resources may be provided by the user through the console process 24, or automatically employed by the bandwidth control process 44 for selecting network consumption limits. The design and development of such a process for determining available network resources follows from principles well known in the art, including those set forth in U.S. Pat. No. 5,920,701, Scheduling data transmission, by Miller, C. Kenneth et al., the teachings of which are herein incorporated by reference.” (Midgley, col. 19, lines 10-52, emphasis added).

While Midgley describes a mechanism for the user to select a consumption limit on bandwidth or select a particular network link, Midgley does not disclose a “replicator ... configured to ... provide guidelines to a user for modifying resources of said system” as is recited in amended claim 7. Nor are the above claimed limitations found in Rubin. For at least the above reasons, Applicant submits that claim 7 is patentably distinguishable over the cited art. Further, because claim 15 includes similar features to that of claim 7, claim 15 is patentable over the cited art for similar reasons.

Applicant believes the application to be in condition for allowance. However, should the examiner believe issues remain, the below signed representative would appreciate and requests a phone interview (512-853-8866) to facilitate a speedy resolution.

## CONCLUSION

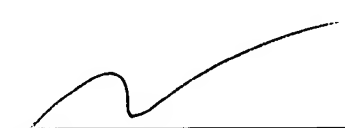
Applicant submits the application is in condition for allowance, and notice to that effect is respectfully requested.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicant(s) hereby petition for such an extension. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5760-12100/RDR.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,



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